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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,871	08/18/2005	Thomas Leucht	GAS-009	8789

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EXAMINER	
DAVIS, JENNA L	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/538,871	LEUCHT ET AL.	
	Examiner	Art Unit	
	Jenna Davis	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) *17-34* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

The specification is objected to because at page 3, lines 7-9 reference is made to the claims. Because the claims may change during prosecution as they have in this case, this is improper. Correction is required.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claim 11 recites 3 to 15 weight % of a flame retardant while the specification recites 3-15 volume % of the flame retardant. Clarification is required.

Election/Restrictions

Applicant's election without traverse of claims 1-16 in the reply filed on April 24, 2006, is acknowledged.

Claim Rejections - 35 USC § 112

The amendments to the specification and claims 9, 15, 5, 6, 8 15 and 16 overcomes the rejection under 35 USC 112 second paragraph. Accordingly the rejection is withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-10, 12-13, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nozaki (US 6248820).

Nozaki et al. teach a flame retardant for flameproof mesh sheets which does not generate harmful halogen gas. The flame retardant for mesh sheets comprises red phosphorus, an ammonium polyphosphate compound in an amount of 10 to 70 parts by weight based on 100 parts by weight of an aqueous dispersion, and a resin solid content (abstract). Ammonium polyphosphate acts as the flame retardant and would necessarily be an acid donor. The flame retardant can be used to impregnated, flameproof mesh sheets woven out of coated yarn (col.3 liens 6-8). The polymer can be a polyurethane having the main structure of a polyester (col.4 line 23). The red phosphorus promotes the carbonization of polyurethane (col.5 lines 60-62), which necessarily acts as a carbon donor. The polyurethane aqueous dispersion is present in amounts of about 10 to 70 wt.% (col.4 lines 45-46). Inherent to polyurethane is a crystallization temperature of less than 190°C and a melting temperature in the range of 50°C to 400°C or a decomposition temperature in the range of 150°C to 500°C. Therefore, the polyurethane would necessarily have a difference between the melting temperature and the crystallization temperature in the range of 55 to 70 K. While the reference does not require the coating to be transparent, it would have been obvious to a person having ordinary skill in the art to do so in order to be able to view the underlying substrate.

Although Nozaki et al. do not explicitly teach the claimed carbon content, it is reasonable to presume that the polymer material inherently provides a share of at least 20 weight percent of the carbon. Support for said presumption is found in the use of like materials (i.e. flame retardants for mesh sheets), which would result in the claimed property. The burden is upon the

Applicant to prove otherwise. In addition, the presently claimed property would obviously have been present once the claimed product is provided.

Nozaki et al. teach the use of mold preventing agents (col.7 lines 62-63), but do not specifically teach an insecticide or bactericide. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a mold preventing agent since Examiner takes Official Notice of the equivalence of insecticides or bactericides and mold preventing agents for their use in the art and the selection of these known equivalents to be used as fungicides would be within the level of ordinary skill in the art. Further, It would have been obvious to one having ordinary skill in the art at the time the invention was made to select the desired weight percents of the fungicides through the process of routine experimentation in order to arrive at values which offered the optimum fungus or bacteria prevention in the invention of Nozaki et al.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nozaki et al. in view of Marx et al. (US 4,774,268).

Nozaki et al. fail to teach that the coating comprises from 0.5 to 10 weight % of an isocyanate or a melamine-formaldehyde. Marx et al. are drawn to flame resistant polyurethane compositions. Marx et al. teach that the flame retardant composition comprises from 10 to 50 weight percent of a melamine formaldehyde (col.7 lines 45-48). It would have been obvious to one having ordinary skill in the art at the time the invention was made to add the melamine formaldehyde of Marx et al. into the coating composition of Nozaki et al. motivated to act as a crosslinking agent as well as to allow the polyurethane to soften when heated.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nozaki et al. in view of Maples et al. (US 6,284,343).

Nozaki et al. do not specifically teach an agent for deaeration. Maples et al. are drawn to fire resistant carpet backing comprising a polyurethane dispersion. Maples et al. teach a composition comprising a defoamer in a range of about 0.01 to 1.0 wt.% (col.8, Table). Defoamers are known in the art as equivalents of deaerating agents. It would have been obvious to one having ordinary skill in the art at the time the invention was made to add a defoaming agent to the polyurethane dispersion of Nozaki et al. motivated to remove oxygen and prevent the coating from foaming.

Response to Arguments

Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

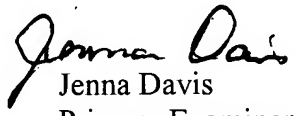
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna Davis whose telephone number is 571-272-3357. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jenna Davis
Primary Examiner
Art Unit 1771

Jld
571-272-3357